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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/718,509	11/20/2003	Michael J. Czaplicki	1001-026RE	1248
25215 7590 04/27/2007 DOBRUSIN & THENNISCH PC 29 W LAWRENCE ST SUITE 210 PONTIAC, MI 48342			EXAMINER BRINSON, PATRICK F	
			ART UNIT	PAPER NUMBER
			3754	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		04/27/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/718,509

Applicant(s)

CZAPLICKI ET AL.

Examiner

Patrick F. Brinson

Art Unit

3754

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 November 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 22 and 38 is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-7, 9-13, 16-20, 25-27, 31, 33-37, 39 and 43 is/are rejected.
- 7) ☒ Claim(s) 4, 8, 14, 15, 21, 23, 24, 28-30, 32, 40-42 and 44 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>11/20/03 & 2/7/07</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claim 20 is objected to because of the following informalities: Claim 20 recites "the longitudinal structure" without proper antecedent basis. Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 17-20 and 36 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. 4,269,890 to **Breitling et al.**

Breitling et al. discloses a method of reinforcing an automobile cavity including the steps of collapsing the side walls of a flexible barrier (5), inserting a flexible barrier member (5) into a hollow center portion of an automobile frame during the assembly of the automobile, inflating the flexible barrier and introducing reinforcement material into the flexible barrier wherein the reinforcement material assists in increasing the strength and stiffness of the frame, as recited in claims 17 and 36.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 5-7, 9, 11-13, 16, 21, 27, 34, 35 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over DE 197 27 907 to **Eipper et al.** in view of U.S. 4,995,545 to **Wyeech**.

Eipper et al. discloses a method comprising the steps of supporting a flexible barrier member along a portion of an automobile frame structure during initial assembly of the automobile for dividing the area of the structure into one or more sections (10, 11), filling one or more of the sections with a thermally activated expandable polymeric reinforcement material (20), wherein the flexible barrier member retains the reinforcement material in a desired location of reinforcement within the frame and exposing the reinforcement material to a temperature of about 130°, as recited in claim 1, 17, and 39. Fig. 1 discloses the flexible barrier including two end portions joined together by a center portion and defining a volume between the two end portions and about the center portion, the volume being filled with a

thermally activated expandable carbon reinforcement material. **Eipper et al** does not disclose the thermally activated expandable material as being a polymeric material.

Wyeech discloses a method of reinforcing a hollow automobile structure including providing a thermosetting resin within the structure that is allowed to cure and support the structure from within. It is disclosed that a preferred resin is an epoxy resin due to its excellent adhesion characteristics, rapid rate of curing and high strength exhibited when fully cured. The resin includes expandable microspheres that expand, contacting the surrounding structure, filling any small voids and conforming to irregular surfaces. The beads are thermally activated by heat generated in the exothermic polymerization reaction at temperatures between about 100°C to about 120°C. It would have been obvious to one having ordinary skill in the art at the time the invention was made to substitute for the expandable material of **Eipper et al.** an expandable material formed from polymeric material as suggested by **Wyeech** in order to fill the flexible barriers with a quick curing, high strength filler that will strongly support the automobile structure.

4. Claims 1, 3, 5-7, 9-13, 16, 18, 25, 26, 31, 33, 34, 37 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Breitling et al.** in view of **Wyeech**.

The patent to **Breitling et al.** discloses a method of reinforcing an automobile cavity including the steps of collapsing the side walls of a flexible barrier (5), inserting

a flexible barrier member (5) into a hollow center portion of an automobile frame during the assembly of the automobile, inflating the flexible barrier and introducing reinforcement material into the flexible barrier wherein the reinforcement material assists in increasing the strength and stiffness of the frame. **Breitling et al.** discloses the expandable material as being foam, but does not disclose it as being polymeric foam. The patent **Wyeech** discloses a method of reinforcing a hollow automobile structure including providing a thermosetting resin within the structure that is allowed to cure and support the structure from within. It is disclosed that a preferred resin is an epoxy resin due to its excellent adhesion characteristics, rapid rate of curing and high strength exhibited when fully cured. The resin includes expandable micropheres that expand, contacting the surrounding structure, filling any small voids and conforming to irregular surfaces. The beads are thermally activated by heat generated in the exothermic polymerization reaction at temperatures between about 100°C to about 120°C. It would have been obvious to one having ordinary skill in the art at the time the invention was made to substitute for the expandable material of **Breitling et al.** an expandable material formed from polymeric material as suggested by **Wyeech** in order to fill the flexible barriers with a quick curing, high strength filler that will strongly support the automobile structure.

Allowable Subject Matter

5. Claims 4, 8, 14, 15, 21, 23, 24, 28-30, 32, 40-42 and 44 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. Claims 22 and 38 are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Patrick F. Brinson** whose telephone number is (571) 272-4897. The examiner can normally be reached on M-F 7:30-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Kevin P. Shaver** can be reached on (571) 272-4720. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3754

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Patrick F. Brinson
Primary Examiner
Art Unit 3754

P. F. Brinson
March 18, 2007